Title (en)

METHOD FOR THREE-PHASE SUPPLY INTO AN ALTERNATING VOLTAGE NETWORK, AND THREE-PHASE INVERTER

Title (de)

VERFAHREN ZUR DREIPHASIGEN EINSPEISUNG IN EIN WECHSELSPANNUNGSNETZ UND DREIPHASIGER WECHSELRICHTER

Title (fr)

PROCÉDÉ D'ALIMENTATION TRIPHASÉE DANS UN RÉSEAU DE TENSION ALTERNATIVE ET ONDULEUR TRIPHASÉ

Publication

EP 3939138 A1 20220119 (DE)

Application

EP 20711873 A 20200313

Priority

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- EP 2020056876 W 20200313

Abstract (en)

[origin: WO2020182985A1] For three-phase supply of electrical power from a direct current source (1) by means of an inverter (2) into a three-phase alternating voltage network (3), the inverter (2) having a control structure (10), the control structure (10) comprising a controller (11) and a multiplier (12), a method comprises the steps of: - measuring phase-specific mains voltages (U_abc); - determining a mains frequency (f_Netz) from the measured mains voltages (U_abc); - generating phase-specific sinusoidal voltage reference values (U_ref) by means of the controller (11) from the phase-specifically measured mains voltages (U_abc) and the determined mains frequency (f_Netz), wherein the voltage reference values (U_ref) have phase-specific amplitudes and a common frequency, which correspond to the respective amplitudes or the frequency of the measured mains voltages (U_abc) of the individual phases, - generating phase-specific target current values (I_abc_soll) by means of the multiplier (12, 12') in that products are formed from phase-specifically predetermined target current-amplitude values (I_d_soll) and the phase-specific voltage reference values (U_ref) and are normalized phase-specifically to respective mains voltage amplitudes (U_d), and - using the phase-specific target current values (I_abc_soll) for controlling circuit breakers of the inverter. An inverter is designed to carry out the method.

IPC 8 full level

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CPC (source: EP US)

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